

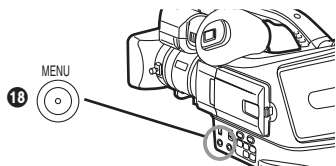
Panasonic Broadcast

AG-DVC7 Menu Information

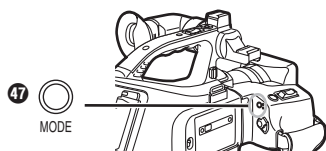
Using the Menu Screen

To facilitate the selection of a desired function or setup, this Camera Recorder displays various function setups on Menus.

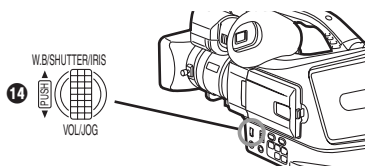
1 Press the [MENU] Button 18.



- The Menu corresponding to the Mode selected by using the [MODE] Button 47 is displayed.



2 Turn the [PUSH] Dial 14 to select a desired Sub-Menu.



- Turn the [PUSH] Dial 14 to display the highlighted item.

3 Press the [PUSH] Dial 14 to display the selected Sub-Menu.

4 Turn the [PUSH] Dial 14 to select the item to be set.

5 Press the [PUSH] Dial 14 to set the selected item to a desired mode.

- With each press of the [PUSH] Dial, the cursor [▶] moves to the next mode. Menu items that cannot be used in combination with the selected item are displayed in dark blue.
- While a Menu is displayed, you cannot record or play back. Menus can be displayed during playback but not during recording. The above operations can be done using the [MENU] Button, [SET] Button and [ITEM] Button on the Remote Controller. (-11-)

To Exit the Menu Screen

Press the [MENU] Button again.

About the Menu Mode Setting

The setting selected on the Menu will be retained even when the Camera Recorder is turned off. However, if the Battery or AC Adaptor is disconnected before turning off the Camera Recorder, the selected setup may not be retained. (But, the setups of [NEGA], [SEPIA], [MONO] or [SOLARI] (-29-) are not retained.)

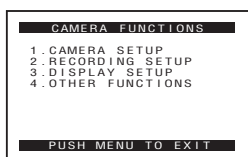
- Menu operation flow is shown in this text by >>.

List of Menus

The figures of the Menus are for explanation purposes only, and they are different from the actual Menus.

■ [CAMERA FUNCTIONS]

Camera Mode Main-Menu



[1. CAMERA SETUP]

Camera Setup Sub-Menu

[PROGRESSIVE]

Progressive Photoshot Mode -22-

[D.ZOOM]

Digital Zoom -23-

[CINEMA]

Cinema-like Format Recording -25-

[P.EFFECT]

Picture Effects -29-

[RETURN]

Returning to the Main-Menu

- If you set [RETURN] to [YES], the menu changes back to the Main-Menu.

[2. RECORDING SETUP]

Recording Setup Sub-Menu

[REC SPEED]

Recording Speed Mode -18-

[AUDIO REC]

Audio Recording Mode -18-

[SCENEINDEX]

Scene Index Mode -35-

[WIND CUT]

Wind Noise Reduction -25-

[ZOOM MIC]

Zoom Microphone -23-

[MIC LEVEL ADJ.]

Microphones Sensitivity Level -31-

[RETURN]

Returning to the Main-Menu

List of Menus

[3. DISPLAY SETUP]

Display Setup Sub-Menu

[DATE/TIME]

Date and Time Indication -41-

[C.DISPLAY]

Counter Display Mode -41-

[C.RESET]

Counter Reset -52-

- It resets the counter to zero. However, it cannot reset the Time Code.

[DISPLAY]

Display Mode -41-

[LCD MODE]

LCD Lighting Mode -15-

[LCD/EVF SET]

LCD and Viewfinder Adjustment -15-

[RETURN]

Returning to the Main-Menu

[4. OTHER FUNCTIONS]

Other Functions Sub-Menu

[REMOTE]

Remote Controller Mode -11-

[REC LAMP]

Recording Lamp -20-

[BEEP SOUND]

Beep Sound -42-

[SHTR EFFECT]

Shutter Effect -22-

[CLOCK SET]

Date and Time Setting -18-

[SELF REC]

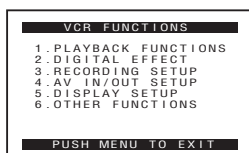
Recording Yourself -21-

[RETURN]

Returning to the Main-Menu

■ [VCR FUNCTIONS]

VCR Mode Main-Menu



[1. PLAYBACK FUNCTIONS]

Playback Functions Sub-Menu

[BLANK SEARCH]

Blank Search -34-

[SEARCH]

Index Search Mode -35-

[12bit AUDIO]

Audio Selector -38-

[AUDIO OUT]

Audio Output Mode -44-

[RETURN]

Returning to the Main-Menu

[2. DIGITAL EFFECT]

Playback Digital Effect Functions Sub-Menu

[EFFECT]

Digital Effect On/Off -36-

[EFFECT SELECT]

Digital Effect Selection -36-

[RETURN]

Returning to the Main-Menu

[3. RECORDING SETUP]

Recording Setup Sub-Menu

[REC SPEED]

Recording Speed Mode -18-

[AUDIO REC]

Audio Recording Mode -18-

[AUDIO LEVEL]

Audio Level Setting -38-

[RETURN]

Returning to the Main-Menu

[4. AV IN/OUT SETUP]

Audio-Video Input/Output Setup Sub-Menu

[AV JACK]

AV Socket -38-

[A.DUB INPUT]

Audio Dubbing Input -38-

[DV OUT]

Analog-Digital Conversion Output -45-

[RETURN]

Returning to the Main-Menu

[5. DISPLAY SETUP]

Display Setup Sub-Menu

- All of the items on the [DISPLAY SETUP] Sub-Menu are the same as those on the [DISPLAY SETUP] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu.

[6. OTHER FUNCTIONS]

Other Functions Sub-Menu

[REMOTE]

Remote Controller Mode -11-

[CLOCK SET]

Date and Time Setting -18-

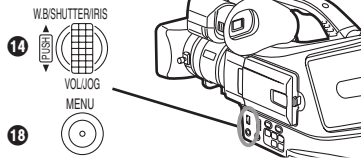
[RETURN]

Returning to the Main-Menu

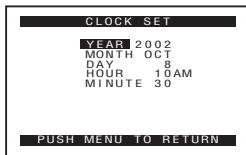
Setting Date and Time

Since the internal clock of the Camera Recorder has a slight imprecision, make sure to check the time before recording.

1 Set [OTHER FUNCTIONS] >> [CLOCK SET] >> [YES].



2 Press the [PUSH] Dial 14 to select [YEAR]/[MONTH]/[DAY]/[HOUR]/[MINUTE] and turn to set it to a desired value.



- Year will cycle in the order shown below. 2000, 2001, ..., 2089, 2000, ...

3 Press the [MENU] Button 18 to finish setting the date and time.

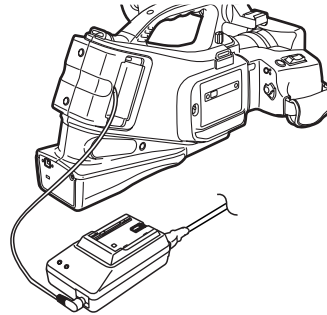
- The clock operation starts from [00] second.
- The Menu will disappear when the [MENU] Button is pressed again.
- If the built-in battery is weak, the Date/Time Indication becomes [--]. In this case, charge the built-in battery.
- The clock employs the 12-hour system.

Internal Lithium Battery Recharge

The internal lithium battery sustains the operation of the clock. When the Date/Time Indication becomes [--], the internal lithium battery is exhausted.



1 Connect the AC Adaptor to the Camera Recorder with the power turned off and then connect to the AC Mains socket.



- After charging for 4 hours, the built-in lithium battery can power the clock for approximately 3 months.

LP Mode

A desired recording speed can be selected with [REC SPEED] on the [RECORDING SETUP] Sub-Menu.

If LP Mode is selected, the recording time becomes 1.5 times longer than that of SP Mode.

Although the image quality does not decrease with the LP Mode recording, mosaic-pattern noise may appear on a playback image, or some normal functions may be restricted.

- The contents that are recorded in LP Mode are not completely compatible with other equipment.
- Audio dubbing is not possible with LP Mode. (-38-)

Audio Recording Mode

The sound quality of the recorded sound can be selected with [AUDIO REC] on the [RECORDING SETUP] Sub-Menu.

High sound-quality recording is possible with "16 bit 48 kHz 2 track" Mode. With the "12 bit 32 kHz 4 track" Mode, the original sound can be recorded on 2 tracks in stereo, while the other 2 tracks can be used for Audio Dubbing.

Holding the Camera Recorder for Recording

Normal Recording.



- When walking while recording, keep both eyes open so that you can see where you are going and what is happening around you.
- Place the Camera Recorder on your right shoulder and hold it firmly with both hands.
- Hold the Eyecup of the Viewfinder as close as possible to your right eye.
- Take a firm stance with the legs slightly apart.
- For stable images, it is recommended to use a tripod (optional) whenever possible.

For More Stable Pictures.



- Stabilize the Camera Recorder by resting your elbows on a table or other stable horizontal surface.

Low-Angle Recording.



Adjust the angle of the LCD Monitor according to the position in which the Camera Recorder is held.

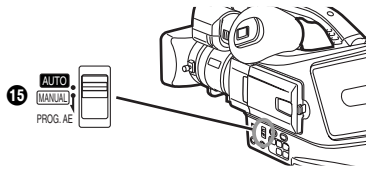
- If the Camera Recorder is not held firmly in stable position, the picture in the LCD Monitor cannot be watched properly.
- For easier long-angle recording, the Sub Recording Start/Stop Button and the Sub Zoom Lever on the front of the Camera Recorder can be used.

Recording from a high position.



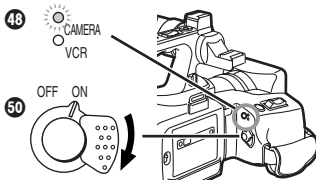
Recording

When recording with the [AUTO/MANUAL/PROG.AE] Switch 15 set to [AUTO], the Camera Recorder automatically adjust the focus and white balance. In some cases, they cannot be adjusted automatically and need to be adjusted manually. (-27-, -29-)



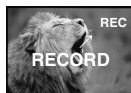
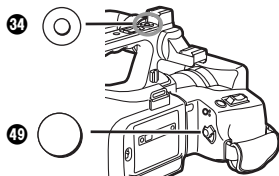
1 Set the [OFF/ON] Switch 50 to [ON].

- The [CAMERA] Lamp 48 lights up.



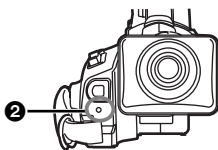
2 Press the Recording Start/Stop Button 49 (or Sub Recording Start/Stop Button 34).

- Recording starts.
- After the [RECORD] is displayed, it changes to [REC].



■ Recording Lamp (Tally Lamp)

The Recording Lamp 2 lights up during recording and alerts those being recorded that recording is in progress.



- The Recording Lamp does not light up if the [REC LAMP] on the [OTHER FUNCTIONS] Sub-Menu is set to [OFF].

■ To Pause the Recording

Press the Recording Start/Stop Button 49 (or 34) again.

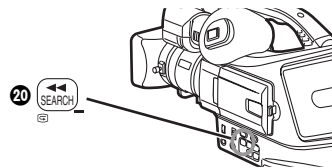
The [PAUSE] Indication is displayed.



- If the Recording Pause Mode continues for more than 5 minutes, the power is turned off automatically for tape protection and power conservation. To resume recording from this condition, turn off, then turn on the power again.

■ To Check the Recording

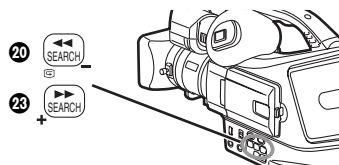
By pressing the Recording Check Button [SEARCH] 20 briefly in the Recording Pause Mode, you can play back the last few seconds of the recorded scene.



- The [CHK] Indication is displayed. After checking, the Camera Recorder resumes the Recording Pause Mode.

■ To View the Recorded Scene while the Recording is Paused (Camera Search)

The recorded scene can be viewed by keep pressing the [SEARCH -] Button 20 or [SEARCH +] Button 23 in the Recording Pause Mode.

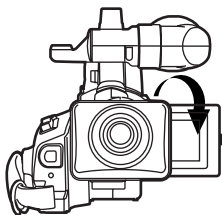


- When the [SEARCH -] Button is pressed, images are played back in the reverse direction.
- When the [SEARCH +] Button is pressed, images are played back in the forward direction.

Recording

■ Recording Yourself

By opening the LCD Monitor and rotating it frontward (to the lens side), you can let the subject in front of the Camera Recorder monitor the shot while recording is in progress.



- When the LCD Monitor is opened, the Viewfinder is disabled automatically. However, when the LCD Monitor is rotated frontward, the image is also shown in the Viewfinder.
- If you prefer to have the image on the LCD Monitor to look like an image in a mirror, set [SELF REC] on the [OTHER FUNCTIONS] Sub-Menu to [MIRROR]. Images are recorded normally and no left and right reversal occurs.
- If [MIRROR] is used during self-recording, only the basic indications, such as the Recording Indication [●], Recording Pause Indication [●||] and Remaining Battery Power Indication [▣], are displayed.
- If a general Warning/Alarm Indication [!] appears, return the LCD Monitor to the original position in order to check the specific content of the Warning/Alarm Indication.

■ To Finish the Recording

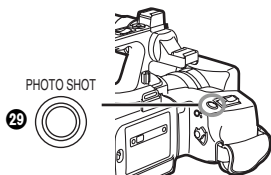
Set the [OFF/ON] Switch **Ⓞ** to [OFF].

- For other notes concerning this item, see -42-.

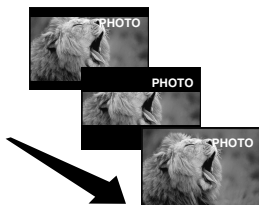
Photoshot

This Camera Recorder can take approximately 7 seconds still pictures containing sound.

I Press the [PHOTO SHOT] Button 29 in the Recording Pause Mode.



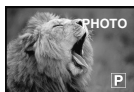
- The Camera Recorder records a still picture for about 7 seconds and then switches back to the Recording Pause Mode.



■ Progressive Photoshot

With the Progressive Photoshot Function, you can record still pictures with higher resolution than with the normal Photoshot Function.

- When [PROGRESSIVE] on the [CAMERA SETUP] Sub-Menu is set to [AUTO], the [P] Indication is displayed. When the [P] Indication is displayed, press the [PHOTO SHOT] Button in the Recording Pause Mode.



- This function may not work with some function setups. (-64-)

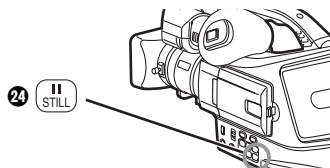
■ Continuous Photoshot

If you set [SHTR EFFECT] on the [OTHER FUNCTIONS] Sub-Menu to [ON] and keep the [PHOTO SHOT] Button pressed, the Camera Recorder will continuously record still pictures in approximately 0.7 seconds intervals until the button is released. (However, this does not operate when using Progressive Photoshot.)

- The screen blinks and, at the same time, a shutter clicking sound is recorded.

■ Digital Still Picture

When the [STILL] Button 24 is pressed, images become still pictures. When the button is pressed again, the Digital Still Picture Mode is cancelled.



- We recommend that you press the [STILL] Button first at the position where you wish to record the picture so as to enter the Digital Still Picture Mode and then press the [PHOTO SHOT] Button.
- For other notes concerning this item, see -42-, -43-.

Zoom In/Out Functions

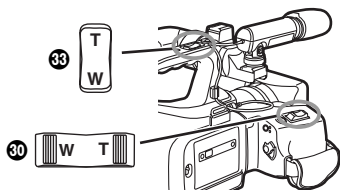
It gives special effects to the video by recording objects close by or with wide-angle shot.

1 For wide-angle shots (zoom out):

Push the [W/T] Lever **30** (or Sub Zoom Lever **33**) towards [W].

For close-ups (zoom in):

Push the [W/T] Lever towards [T].



- Zoom Magnification Indication is displayed for a few seconds.



■ To Take Close-up Shots of Small Subjects (Macro Close-up Function)

(Macro Close-up Function)

When the zoom magnification is 1×, the Camera Recorder can focus on a subject that is as close as approximately 20 mm from the Lens. With this, small subjects like insects can be recorded.

■ To Use the Zoom Microphone Function

Along with the zooming operation, the microphone's directional angle and sensitivity are varied for recording sounds.

- Set [CAMERA FUNCTIONS] >> [RECORDING SETUP] >> [ZOOM MIC] >> [ON].
- The [Z.MIC] Indication appears. (The Indication is for the built-in microphone.)

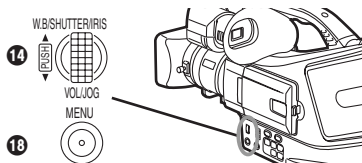


- For other notes concerning this item, see -43-.

Digital Zoom Function

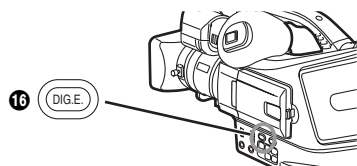
This function is useful when you want to record close-up shots of subjects located beyond a normal zoom range of 1× to 15× magnification. With the Digital Zoom Function, you can select a magnification of 30× or even to 750×.

1 Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [D.ZOOM] >> [30×] or [750×].



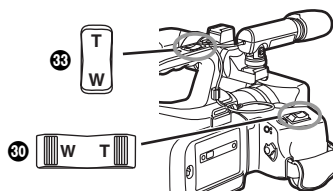
- 30×: Digital zooming to 30×
- 750×: Digital zooming to 750×

2 Press the [DIG.E.] Button **18** until the [D.ZOOM] Indication appears.



- When you press the [DIG.E.] Button, the Indications change in following order.
[AUTO EIS] → [AUTO EIS] + [D.ZOOM] → [D.ZOOM] → no Indication → [AUTO EIS]...

3 Push the [W/T] Lever **30** (or **33**) towards [W] or towards [T] to zoom in or out.



To Cancel the Digital Zoom Function

Press the [DIG.E.] Button **18** until the [D.ZOOM] Indication disappears.

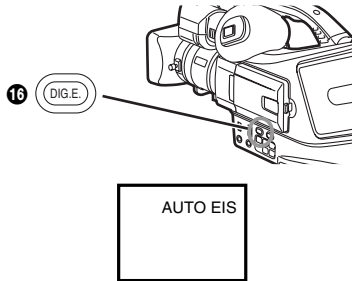
- For other notes concerning this item, see -43-.

Image Stabilizer Function

If the Camera Recorder might be shaken while recording, the camera shake in the image can be corrected.

- If the Camera Recorder shakes too much, this function may not be able to stabilize images.

1 Press the [DIG.E.] Button **16** until the [AUTO EIS] Indication appears.



To Cancel Image Stabilizer

Press the [DIG.E.] Button **16** until the [AUTO EIS] Indication disappears.

- For other notes concerning this item, see -43-.

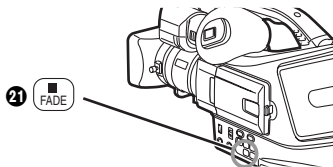
Fade In/Out Functions

Fade In

Fade In brings out images and sounds gradually from a black screen at the beginning of a scene.

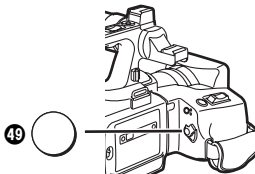


1 Keep pressing the [FADE] Button **21** during the Recording Pause Mode.



- The image fades out gradually.

2 When the image is completely gone, press the Recording Start/Stop Button **49** to start recording.

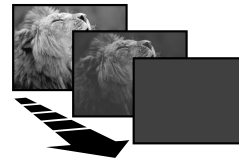


3 Release the [FADE] Button **21** about 3 seconds after starting recording.

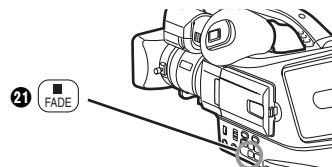
- The image reappears gradually.

Fade Out

Fade Out causes images and sounds to disappear gradually, leaving a black screen at the end of a scene.



1 Keep pressing the [FADE] Button **21** while recording.



- The image fades out gradually.

2 When the image is completely gone, press the Recording Start/Stop Button **49** to stop recording.



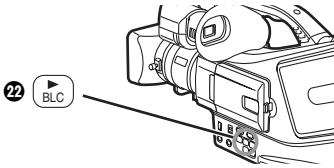
3 Release the [FADE] Button **21**.

- The still picture cannot fade in or fade out.

Backlight Compensation Function

This prevents a recording subject from being recorded darker in backlight. (Backlight is the light that shines from behind a recording subject.)

I Press the [BLC] Button 22.



- The [] Indication flashes and then is displayed.
- The entire screen becomes brighter.



To Resume Normal Recording

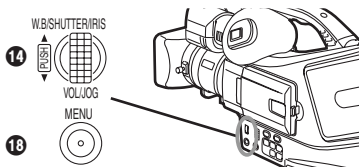
Press the [BLC] Button.

- For other notes concerning this item, see -43-.

Wind Noise Reduction Function

This function reduces the sound of a wind hitting the microphone when recording.

I Set [CAMERA FUNCTIONS] >> [RECORDING SETUP] >> [WIND CUT] >> [ON].



- The [WIND CUT] Indication appears. (The Indication is for the built-in microphone.)



To Cancel the Wind Noise Reduction Function

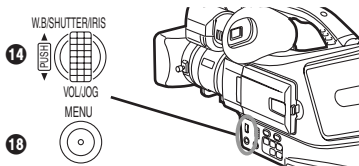
Set [CAMERA FUNCTIONS] >> [RECORDING SETUP] >> [WIND CUT] >> [OFF].

- For other notes concerning this item, see -43-.

Cinema Function

This function is for recording in a cinema-like wide screen.

I Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [CINEMA] >> [ON].



- Black bars appear at the top and bottom of the screen.



To Cancel the Cinema Mode

Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [CINEMA] >> [OFF].

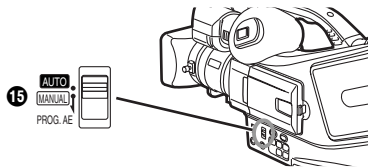
- For other notes concerning this item, see -43-.

Recording in Special Situations

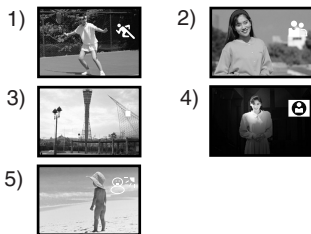
(Program AE)

You can select optimal automatic exposures under specific recording situations.

1 Repeatedly slide the [AUTO/MANUAL/PROG.AE] Switch 15 downwards from the [MANUAL] position until a desired mode [Sports], [Portrait], [Low Light], [Spotlight] or [Surf & Snow] appears.



- The Indication of the selected Mode appears.



1) [Sports] Sports Mode

- For recording scenes involving quick movements, such as sports scenes.

2) [Portrait] Portrait Mode

- For bringing up people clearly from the background.

3) [Low Light] Low Light Mode

- For recording a dark scene brighter.

4) [Spotlight] Spotlight Mode

- For recording a subject under spotlight in a party, theatre, etc.

5) [Surf & Snow] Surf & Snow Mode

- For recording in a glaring surrounding, such as skiing grounds, beaches, etc.

To Cancel the Program AE Function

Set the [AUTO/MANUAL/PROG.AE] Switch to [AUTO].

- For other notes concerning this item, see -43-.

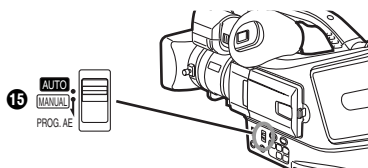
Recording in Natural Colors

(White Balance)

Depending on the scene or light condition, the Automatic White Balance Adjustment Mode may not be able to bring out natural colors. In such a case, the white balance can be adjusted manually.

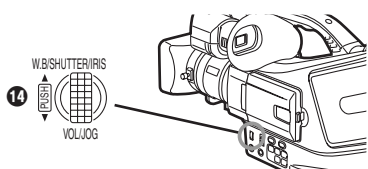
When the Camera Recorder is turned on with the Lens Cap on, the Automatic White Balance Adjustment may not function properly. Please turn on the Camera Recorder after removing the Lens Cap.

1 Set the [AUTO/MANUAL/PROG.AE] Switch 15 to [MANUAL].



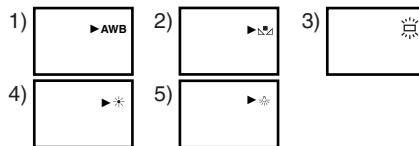
- The [MNL] Indication appears.

2 Press the [PUSH] Dial 14.



- The [AWB] Indication appears.

3 Turn the [PUSH] Dial 14 to set a desired White Balance Mode.



1) Automatic White Balance Adjustment [AWB]

2) The white balance setting that was previously set manually [Manual]

3) Fluorescent Lamp Mode [Fluorescent Lamp]

4) Outdoor Mode [Outdoor]

5) Indoor Mode (recording under incandescent lamp) [Indoor]

To Resume Automatic Adjustment

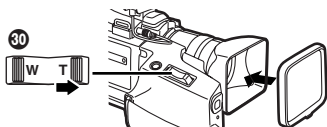
Turn the [PUSH] Dial until the [AWB] Indication appears. Or, set the [AUTO/MANUAL/PROG.AE] Switch to [AUTO].

Adjusting White Balance Manually

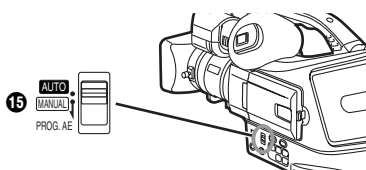
White Balance Adjustment recognizes the color of light and makes adjustment so that the white color will become pure white. The Camera Recorder determines the hue of light that it receives through the Lens and White Balance Sensor, thereby judging the recording condition, and selects the closest hue setting. This function is called Automatic White Balance Adjustment.

For light outside the functional Auto White Balance Adjustment range, use the Manual White Balance Adjustment Mode.

1 Attach the Lens Cap and zoom in until the entire screen becomes white.

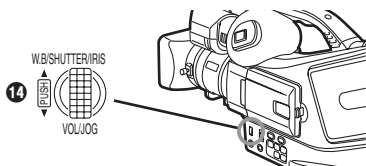


2 Set the [AUTO/MANUAL/PROG.AE] Switch 15 to [MANUAL].



- The [MNL] Indication appears.

3 Press the [PUSH] Dial 14.



- The [AWB] Indication appears.

4 Turn the [PUSH] Dial 14 until the [MNL] Indication is displayed.



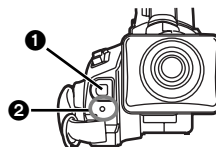
5 Keep pressing [PUSH] Dial 14 until the [MNL] Indication stops flashing.

To Resume Automatic Adjustment

Turn the [PUSH] Dial until the [AWB] Indication is displayed. Or, set the [AUTO/MANUAL/PROG.AE] Switch to [AUTO].

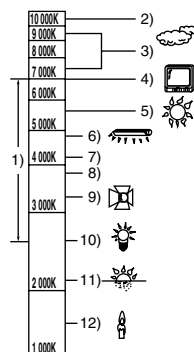
About White Balance Sensor

The White Balance Sensor 1 determines the nature of the light source during recording.



- Do not cover the White Balance Sensor with your hand during recording. Otherwise, White Balance will not function normally.
- The red light from the Recording Lamp 2 will be reflected off your hand or object, possibly causing the White Balance sensor to operate incorrectly and changing the coloring.

Outside of the effective range of Automatic White Balance Adjustment, the image will become reddish or bluish. Even within the effective range of Automatic White Balance Adjustment, the Automatic White Balance Adjustment may not function properly if there is more than one light source. In this case, adjust the White Balance.



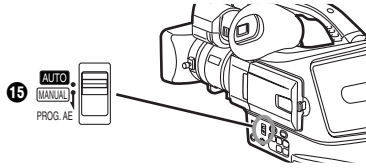
- 1) The effective range of Automatic White Balance Adjustment on this Camera Recorder
- 2) Blue sky
- 3) Cloudy sky (Rain)
- 4) TV screen
- 5) Sunlight
- 6) White fluorescent lamp
- 7) 2 hours after sunrise or before sunset
- 8) 1 hour after sunrise or before sunset
- 9) Halogen light bulb
- 10) Incandescent light bulb
- 11) Sunrise or sunset
- 12) Candlelight

- For other notes concerning this item, see -44-.

Manual Shutter Speed Adjustment

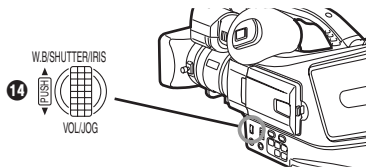
It is useful for recording fast-moving subjects.

1 Set the [AUTO/MANUAL/PROG.AE] Switch **15** to [MANUAL].



- The [MNL] Indication appears.

2 Press the [PUSH] Dial **14** until the Shutter Speed Indication appears.



3 Turn the [PUSH] Dial **14** to adjust the shutter speed.

Range of Shutter Speed Adjustment

1/60–1/8000 s

The standard shutter speed is 1/60 s.

Selecting a speed closer to [1/8000] causes the shutter speed to be faster.

To Resume Automatic Adjustment

Set the [AUTO/MANUAL/PROG.AE] Switch to [AUTO].

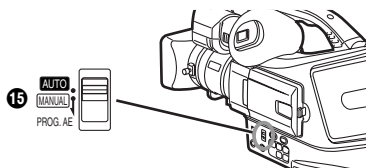
- For other notes concerning this item, see *-44-*.

Manual Iris Adjustment

(F Number)

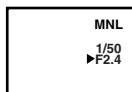
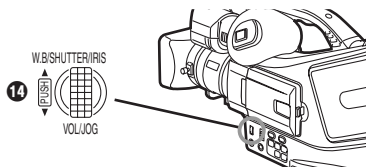
You can use this function when the screen is too bright or too dark.

1 Set the [AUTO/MANUAL/PROG.AE] Switch **15** to [MANUAL].



- The [MNL] Indication appears.

2 Press the [PUSH] Dial **14** until the Iris Indication appears.



3 Turn the [PUSH] Dial **14** to adjust the iris.

Range of Iris Adjustment

CLOSE (Closed), F16, ..., F2.0,

OP (Opened)+0dB, ..., OP+18dB

When the Gain-up Mode [GAIN-UP] (-29-) is used, Iris adjustment is by OP+15dB.

When a value closer to [CLOSE] is selected, the image becomes darker.

When a value closer to [OP+18dB] is selected, the image becomes brighter.

The value to which +dB is attached indicates a Gain-up value. If this value is too large, the quality of the image deteriorates.

To Resume Automatic Adjustment

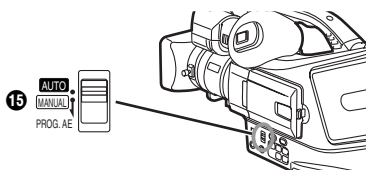
Set the [AUTO/MANUAL/PROG.AE] Switch to [AUTO].

- For other notes concerning this item, see *-44-*.

Manual Focus Adjustment

Focus can be adjusted manually for recording in a situation where auto focus may not function well.

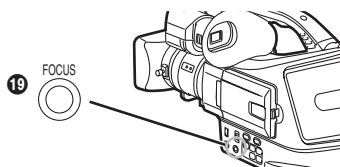
1 Set the [AUTO/MANUAL/PROG.AE] Switch 15 to [MANUAL].



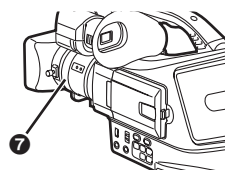
- The [MNL] Indication appears.

2 Press the [FOCUS] Button 19.

- The [▶MF] Indication (Manual Focus Mode) appears.



3 Turn the Focus Ring 7 to adjust the focus.



In the following cases, the Focus Ring cannot be used.

- When the Menu Screen is displayed.
- When you are adjusting the White Balance shutter speed or Iris.

To Resume Automatic Adjustment

Set the [AUTO/MANUAL/PROG.AE] Switch to [AUTO] or press the [FOCUS] Button.

Picture Effect Functions

This Camera Recorder is equipped with Picture Effect Functions that add special effects to the scene.

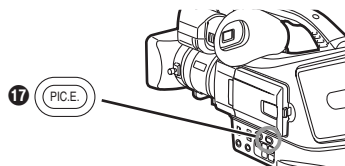
Picture Effects (With [PIC.E.] Button)



- 1) Wipe Mode [WIPE]
 - 2) Mix Mode [MIX]
 - 3) Strobe Mode [STROBE]
 - It records images with a stroboscopic effect.
 - 4) Gain-up Mode [GAIN-UP]
 - It brightens images electronically.
 - Adjust focus manually when using this mode.
- (-29-)
- 5) Trailing Effect Mode [TRAIL]
 - It records images with a trailing effect.
 - 6) Mosaic Mode [MOSAIC]
 - It produces a mosaic-like image.
 - 7) Mirror Mode [MIRROR]
 - The right half of an image becomes a mirror image of the left half.

To Select a Desired Picture Effect

1 Press the [PIC.E.] Button 17 until a desired effect appears.



To Cancel the Picture Effect

Press the [PIC.E.] Button 17 until the Picture effect disappeared.

Picture Effect Functions

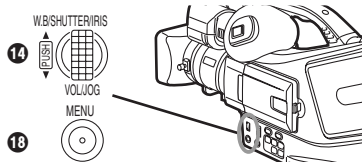
Picture Effects (From [P.EFFECT] Menu)



- 1) Negative Mode [NEGA]
 - The colors of the recorded image are inverted as seen in a negative.
- 2) Sepia Mode [SEPIA]
 - It records a scene with a brownish tint, like the color of old pictures.
- 3) Monotone Mode [MONO]
 - It records a monotone image.
- 4) Solarisation Mode [SOLARI]
 - It records an image with a painting-like effect.

To Select a Desired Picture Effect

- 1 Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [P.EFFECT] >> a desired Picture Effect.



- If the Camera Recorder is turned off, this setting is cancelled.

To Cancel the Picture Effect

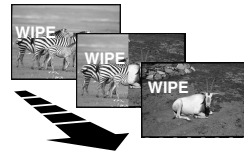
- Set [CAMERA FUNCTIONS] >> [CAMERA SETUP] >> [P.EFFECT] >> [OFF].

- For other notes concerning this item, see -44-.

Wipe Mode and Mix Mode

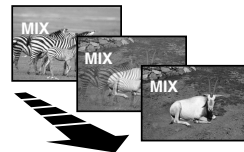
Wipe Mode:

Like a curtain is being pulled, the still picture of the last recorded scene gradually changes to the moving image of a new scene.

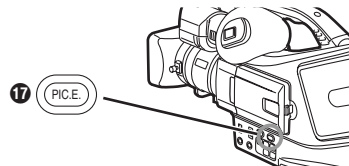


Mix Mode:

While the moving image of a new scene fades in, the still image of the last recorded scene gradually fades out.

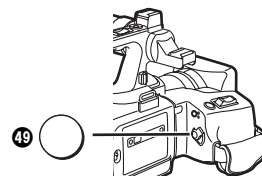


- 1 Press the [PIC.E.] Button 17 until the [WIPE] or [MIX] Indication is displayed.



- The [WIPE] or [MIX] Indication appears.

- 2 Press the Recording Start/Stop Button 49 to start recording.

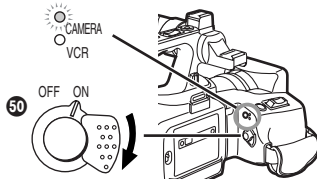


- 3 Press the Recording Start/Stop Button 49 to pause the recording.
 - The last scene is stored in memory. The [WIPE] or [MIX] Indication changes to [WIPE] or [MIX].
 - 4 Press the Recording Start/Stop Button 49 to restart the recording.
 - The last image of the previous scene gradually changes to the new scene.
- For other notes concerning this item, see -44-.

Playing Back

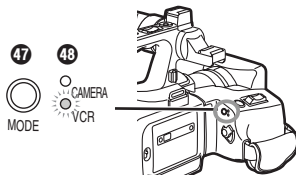
The recorded scene can be played back immediately after the recording.

1 Set the [OFF/ON] Switch 50 to [ON].

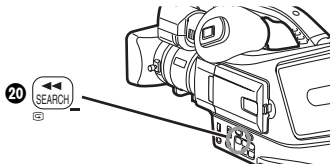


2 Press the [MODE] Button 47.

- The [VCR] Lamp 48 lights up.



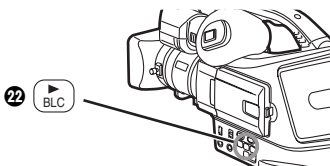
3 Press the [◀◀] Button 20 to rewind the tape.



- Rewind the tape to the point where you want to start playback.
- When the tape reaches the beginning, rewinding stops automatically.

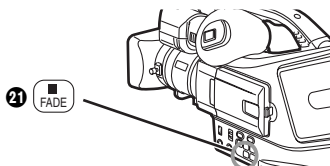
4 Press the [▶] Button 22 to start playback.

- The [▶] Indication appears.



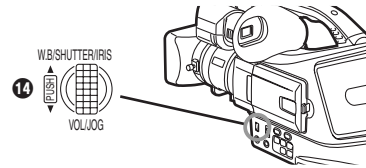
To Stop Playback

Press the [■] Button 21.



■ Adjusting the Sound Volume

Until the [VOLUME] Indication appears, keep pressing the [PUSH] Dial 14. Then, turn the [PUSH] Dial to adjust the volume. After the adjustment, press the [PUSH] Dial to make the [VOLUME] Indication disappear.



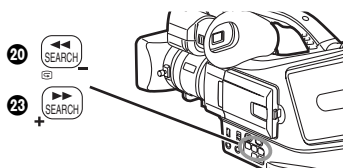
To adjust the volume with the Remote Controller, press the [T] or [W] Button to display the [VOLUME] Indication. Press the [T] Button to increase the volume or press the [W] Button to decrease the volume. The [VOLUME] Indication goes off a few seconds after the adjustment is finished.



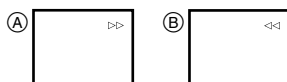
- The sound volume cannot be adjusted using the Remote Controller in Playback Zoom Function. (-36-)
- If a cassette recorded with a copyright protection signal is played back, the picture is distorted by mosaic-like patterns.
- For other notes concerning this item, see -44-.

Finding a Scene You Want to Play Back

■ Cue/Review Playback



If the [▶▶] Button 23 or [◀◀] Button 20 is pressed during Playback, it turns to Cue Playback (A) or Review Playback (B).



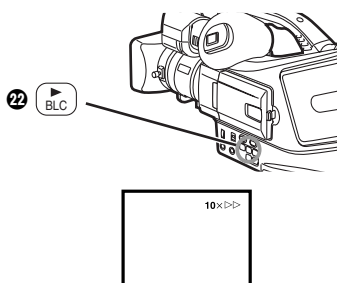
- If the Button is held continuously, it turns to Cue Playback or Review Playback until you release it.

■ Variable Speed Search Function

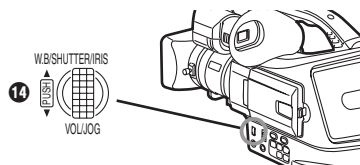
The speed of Cue Playback or Review Playback can be varied.

1 During playback, press the [▶] Button 22.

- The [1×▶] Indication appears.



2 Turn the [PUSH] Dial 14 to select a desired search speed.



The following 6 playback speeds are available for the Variable Speed Search Function in both the fast-forwarding and rewinding directions: 1/5× (slow playback in SP Mode only), 1/3× (slow playback in LP Mode only), 1×, 2×, 5×, 10× and 20×.

- On the Remote Controller this function can be done by pressing the [VAR.SEARCH] and cursor buttons ([▲], [▼]).

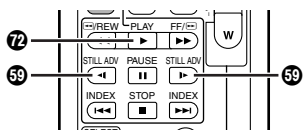
To Resume Normal Playback

Press the [▶] Button 22.

- During Cue or Review Playback, fast-moving images may show mosaic-pattern noise.
- The sound is muted during search even in the [× 1▶] speed mode.

Slow Motion Playback

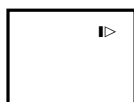
This Camera Recorder can play back at a slow speed.



1 Press the [▶] Button 72.

2 Press the [◀] Button or [▶] Button 59 on the Remote Controller.

- The [■▶] or [◀■] Indication appears.



- When the [◀] Button is pressed, Slow Motion Playback proceeds in the reverse direction. When the [▶] Button is pressed, Slow Motion Playback proceeds in the forward direction.

Scenes recorded in the SP Mode are played back at approximately 1/5th of the normal speed.

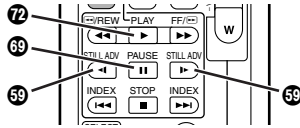
Scenes recorded in the LP Mode are played back at approximately 1/3rd of the normal speed.

To Resume Normal Playback

Press the [▶] Button 72.

Still Playback/Still Advance Playback

This Camera Recorder is capable of still picture playback and frame-advance playback.



1 Press the [▶] Button 72.

2 Press the [⏸] Button 69.

- The playback image stops in the Still Playback Mode.

3 Press the [◀] Button or [▶] Button 59 on the Remote Controller.

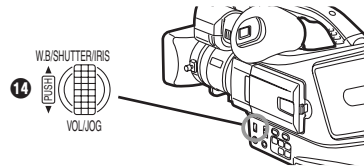
- With each pressing of the [◀] Button, still pictures advance in the reverse direction. With each pressing of the [▶] Button, still pictures advance in the forward direction. If either one of the buttons continues to be pressed, still pictures advance continuously 1 frame at a time until the button is released.

To Resume Normal Playback

Press the [▶] Button 72.

Jog Playback

By turning the Jog Dial ([PUSH] Dial) 14 of the Camera Recorder in the Still Playback Mode, still pictures can be advanced one frame at a time in the forward or backward direction.



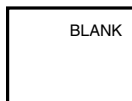
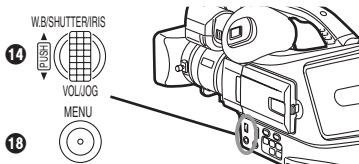
- If the Camera Recorder is left in the Still Playback Mode for more than 5 minutes, the Camera Recorder switches to the Stop Mode to protect the video heads from excessive wear and tear.

Finding the End of Recording

(Blank Search Function)

The Blank Search Function aids you locate the end of the recording on the Cassette quickly.

1 Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [BLANK SEARCH] >> [YES].



- The [BLANK] Indication appears during the Blank Search.
- Approximately 1 second before the last recorded scene, the Camera Recorder switches to the Still Playback Mode.
- If there is no blank portion left on the Cassette, the Camera Recorder stops at the end of the tape.

To Cancel Blank Search Before Completion

Press the [■] Button.

Index Search Functions

To facilitate searching of desired scene, this Camera Recorder automatically records index signals during recording, as explained in the following.

Photoshot Index Signal

These signals are automatically recorded whenever still pictures are taken in Photoshot Mode. (-22-) Photoshot Index Signals are not recorded on still pictures recorded in Continuous Photoshot Mode.

Scene Index Signal

Scene Index Signals are automatically recorded when you start recording after inserting a Cassette.

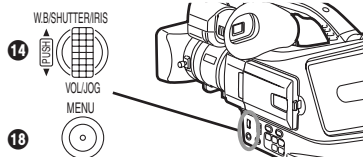
- If [SCENEINDEX] of [RECORDING SETUP] Sub-Menu on the [CAMERA FUNCTIONS] Main-Menu is set to [2HOUR], an index signal is recorded when recording is restarted after an elapse of 2 hours or longer. If it is set to [DAY], an index signal is recorded when recording is restarted after the date has changed since the last recording. (While the index signal is recorded, the [INDEX] Indication flashes for a few seconds.)



- If the Camera Recorder is switched from the VCR Mode to Camera Mode or if the date and time is set before the start of recording, the index signal is not recorded.

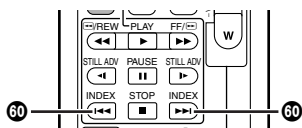
Photoshot Index Search

- 1 Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [SEARCH] >> [PHOTO].



- 2 Press the [MENU] Button (18).

- 3 Press the [▶▶] Button or [◀◀] Button (60) on the Remote Controller.



- With each press of the corresponding button, still pictures recorded in Photoshot Mode are searched.
- Sounds are played back for approximately 4 seconds.

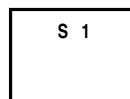
Scene Index Search

- 1 Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [SEARCH] >> [SCENE].

- 2 Press the [MENU] Button (18).

- 3 Press the [▶▶] Button or [◀◀] Button (60) on the Remote Controller.

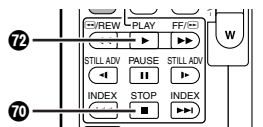
- When the corresponding button is pressed once, the [S 1] Indication appears, and searching of the subsequent scene marked with an index signal starts. Each time the button is pressed after the start of Scene Index Search, the indication changes from [S 2] to [S 9], and the beginning of the scene corresponding to the selected number will be searched.



- Up to 9 scene numbers can be selected.

Continuous Index Search

If the [▶▶] Button or the [◀◀] Button (60) is pressed for 2 seconds or longer, search can be continued at several-second intervals. (To cancel, press the [▶] Button (72) or the [■] Button (70).)

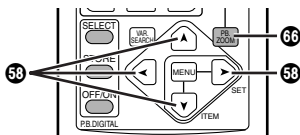


- For other notes concerning this item, see -44-.

Playback Zoom Function

A part of the image can be enlarged up to 10 times during playback.

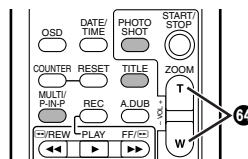
1 During playback, press the [P.B. ZOOM] Button 66 on the Remote Controller.



- The center of the image is enlarged to approximately 2 times.



2 Change the magnification by pressing the [W] Button or [T] Button 64 on the Remote Controller.



3 Press the Arrow Button (▲, ▼, ◀, ▶) 58 on the Remote Controller that points to the area you want to enlarge.

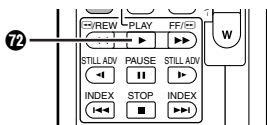
To Change the Enlarging Area of an Image
Press the [P.B. ZOOM] Button 66 on the Remote Controller.

- For other notes concerning this item, see -45-.

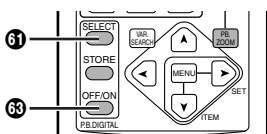
Playback Digital Effect Functions

During playback, special digital effects can be added to the recorded pictures. The same effects as those of Picture Effects, which are used during recording, are obtained.

1 Press the [▶] Button 72.



2 Press the [SELECT] Button 61 on the Remote Controller to select a desired digital effect.



- When the [SELECT] Button is pressed repeatedly, the digital effect selection changes.
- The same setting can be done using [DIGITAL EFFECT] Sub-Menu on the [VCR FUNCTIONS] Main-Menu.

To suspend Playback Digital Effect Temporarily

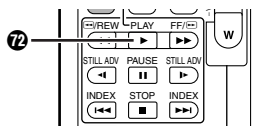
Press the [OFF/ON] Button 63 to suspend or restart the digital effect. When the digital effect is paused temporarily, the selected effect's indication flashes.

To Cancel the Digital Effect

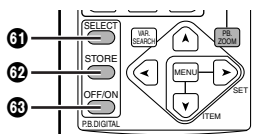
Press the [SELECT] Button 61 on the Remote Controller and clear the digital effect indication.

Wipe Mode and Mix Mode

1 Press the [▶] Button 72.



2 Press the [SELECT] Button 61 on the Remote Controller and select [WIPE] or [MIX].



3 Press the [STORE] Button 62 at the moment you want to save as a still picture.

- The [WIPE] or [MIX] Indication appears, and the image is saved.

4 Press the [OFF/ON] Button 63 in the scene in which you want to use the Wipe or Mix effect.

- The scene changes as a result of the Wipe or Mix effect.

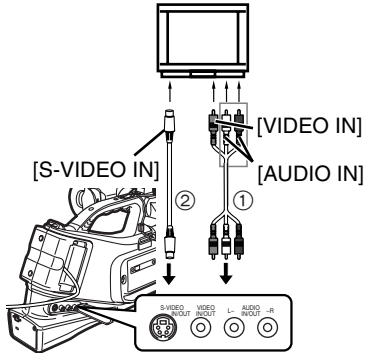
- The Wipe Function and Mix Function can be used only from the Remote Controller during playback.
- If the [OFF/ON] Button 63 is pressed while Wipe or Mix is carried out, the effect will stop temporarily at that point. Pressing the [OFF/ON] Button 63 again will bring back the effect.
- For other notes concerning this item, see -45-.

Playing Back on Your TV

By connecting your Camera Recorder with your TV, the recorded scenes can be viewed on your TV screen.

- Before connecting them, turn off the power of both the Camera Recorder and TV.

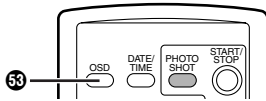
After connecting the Camera Recorder and the TV as illustrated, start playback.



- Using the AV Cable ①, make a connection with the TV. If the TV has an S-Video Socket, connect the S-Video Cable ②, too.

To Make the Indications Appear on the TV Screen

Press the [OSD] Button 53 on the Remote Controller.



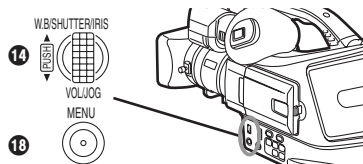
- For other notes concerning this item, see -45-.

Audio Dubbing

You can add music or narration to the recorded Cassette.

- If the tape recorded in the [16bit] Mode is dubbed with the Audio Dubbing function, the original sound is erased. (If you wish to preserve the original sound, use the [12bit] Mode when recording.)
- Audio Dubbing cannot be performed on a recording done in LP Mode. (-I8-)

1 Set [VCR FUNCTIONS] >> [AV IN/OUT SETUP] >> [AV JACK] >> [IN/OUT].

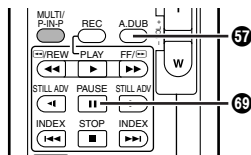


2 Continuing the aforesaid setup, select [A.DUB INPUT] >> [MIC] or [AV IN].

- Set to [AV IN] when external device is used, and to [MIC] when an external or built-in microphone is used.

3 Switch the Camera Recorder over to the Still Playback Mode where you want to add new sound.

4 Press the [A.DUB] Button (57) on the Remote Controller.



5 To start Audio Dubbing, press the [||] Button (69) on the Remote Controller.

To Cancel Audio Dubbing

Press the [||] Button (69) on the Remote Controller. The Camera Recorder is in the Still Playback Mode again.

To dub audio while listening to a pre-recorded sound

When pausing the audio dubbing, [12bit AUDIO] on the [PLAYBACK FUNCTIONS] Sub-Menu is automatically set to [ST2] and you can check the pre-recorded sound. When a microphone is used for audio dubbing, use headphones to listen to the pre-recorded sound while dubbing the audio. (When using headphones, set [AV JACK] on the [AV IN/OUT SETUP] Sub-Menu to [OUT].) When the line input is used, you can dub audio while listening to a pre-recorded sound from the speaker.

To Play Back the Sound Recorded by 12bit Audio Dubbing

Set [VCR FUNCTIONS] >> [PLAYBACK FUNCTIONS] >> [12bit AUDIO] >> [ST2] or [MIX].

ST1: It plays back only the original sound.

ST2: It plays back only the sound added by Audio Dubbing.

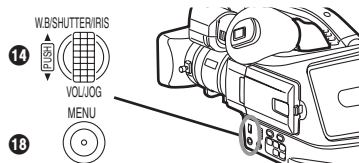
MIX: It plays back both the original sound and the sound added by Audio Dubbing simultaneously.

- For other notes concerning this item, see -45-.

To Adjust the Audio Level

You can adjust the Audio Level for Audio Dubbing.

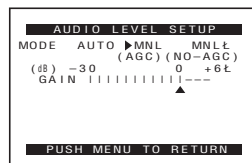
1 Set [VCR FUNCTIONS] >> [RECORDING SETUP] >> [AUDIO LEVEL] >> [YES].



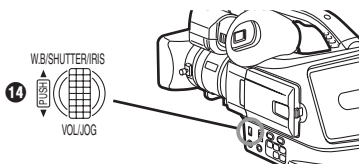
- The [AUDIO LEVEL SETUP] Menu appears.

2 Press the [PUSH] Dial (14) to select the [MNL (AGC, NO-AGC)].

- The Audio Level Meter appears.



3 Turn the [PUSH] Dial (14) to increase or decrease the bars of the [GAIN] Indication.



- For details, refer to the [MIC LEVEL ADJ.] on the [RECORDING SETUP] Sub-Menu of the [CAMERA FUNCTIONS] Main-Menu (-31-).